

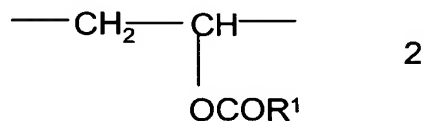
What is claimed is:

1. A fuel oil comprising a larger proportion of middle distillates having a sulfur content of at most 350 ppm and an aromatics content of at most 22% by weight, and also a smaller proportion of at least one copolymer of ethylene and vinyl esters, said copolymer containing

a) bivalent structural units derived from ethylene of the formula 1

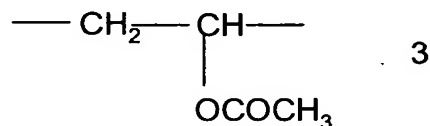


b) from 5 to 12 mol% of bivalent structural units of the formula 2



where R<sup>1</sup> is saturated, branched C<sub>5</sub>-C<sub>18</sub>-alkyl, and

c) from 4 to 13 mol% of bivalent structural units of the formula 3

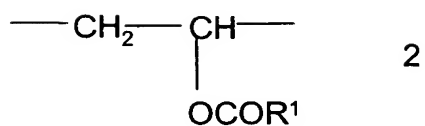


and the sum of the molar proportions of structural units of the formulae 2 and 3 being between 12 and 16 mol%.

2. A fuel oil as claimed in claim 1, wherein the molar proportion of the branched vinyl ester b) is between 5 and 11 mol%.

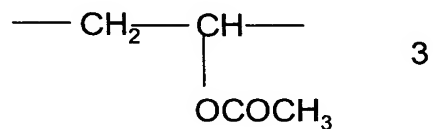
3. A fuel oil as claimed in claim 1 and/or 2, wherein the molar proportion of vinyl acetate c) is between 4.6 and 9 mol%.
4. A fuel oil as claimed in one or more of claims 1 to 3, wherein the comonomers b) present are vinyl esters of branched carboxylic acids having from 5 to 15 carbon atoms.
5. A fuel oil as claimed in one or more of claims 1 to 4, wherein the copolymers, in addition to the structural units referred to as a), b) and c), contain up to 5 mol% of further comonomers selected from olefins having from 3 to 18 carbon atoms, esters of acrylic acid or methacrylic acid with C<sub>1</sub>–C<sub>18</sub>-alcohols and C<sub>1</sub>-C<sub>18</sub>-alkyl vinyl ethers.
6. A fuel oil as claimed in one or more of claims 1 to 5, wherein the copolymers have molecular weights (by GPC against poly(styrene)) of from 3000 to 15 000 g/mol.
7. A fuel oil as claimed in one or more of claims 1 to 6, wherein the degree of branching of the copolymer backbone determined by means of NMR is between 2 and 9 CH<sub>3</sub>/100 CH<sub>2</sub> groups, not taking into account the methyl groups of the comonomers.
8. A fuel oil as claimed in one or more of claims 1 to 7, wherein the copolymers have melt viscosities at 140°C of from 20 to 10 000 mPas.
9. A fuel oil as claimed in one or more of claims 1 to 8, wherein the total content of aromatics in the middle distillate is below 18% by weight.
10. A fuel oil as claimed in one or more of claims 1 to 9, wherein the middle distillate has a 90-20% boiling range of less than 110°C.

11. A fuel oil as claimed in one or more of claims 1 to 10, wherein the middle distillate has a paraffin content by DSC of more than 3% by weight of precipitated paraffins at 10°C below the cloud point.
12. A fuel oil as claimed in one or more of claims 1 to 11, wherein the middle distillate has a density of less than 0.840 g/cm<sup>3</sup>.
13. A fuel oil as claimed in one or more of claims 1 to 12, wherein the middle distillate additionally comprises at least one further ethylene-vinyl ester copolymer.
14. A fuel oil as claimed in one or more of claims 1 to 12, wherein the middle distillate additionally comprises at least one polar nitrogen compound.
15. A fuel oil as claimed in one or more of claims 1 to 12, wherein the middle distillate additionally comprises at least one alkylphenol-aldehyde resin.
16. A fuel oil as claimed in one or more of claims 1 to 12, wherein the middle distillate additionally comprises at least one comb polymer.
17. A fuel oil as claimed in one or more of claims 1 to 12, wherein the middle distillate additionally comprises at least one polyoxyalkylene derivative.
18. A copolymer of ethylene and vinyl esters comprising
  - a) bivalent structural units derived from ethylene of the formula 1
 
$$- \text{CH}_2 - \text{CH}_2 - (1)$$
  - b) from 5 to 12 mol% of bivalent structural units of the formula 2



where R<sup>1</sup> is saturated, branched C<sub>5</sub>-C<sub>18</sub>-alkyl, and

- c) from 4 to 13 mol% of bivalent structural units of the formula 3



and the sum of the molar proportions of structural units of the formulae 2 and 3 being between 12 and 16 mol%.

19. The use of copolymers as claimed in claim 18 for improving the cold flow behavior of middle distillates having a sulfur content of at most 350 ppm and an aromatics content of at most 22% by weight.